REMARKS/ARGUMENTS

The claims have been amended as set forth above. Independent claims 21, 28 and 35 have been amended to further clarify the features of the claims. Claims 22, 29 and 36 have been amended to remedy a minor typographical error. Claims 27 and 34 have been amended to further clarify the features of the claims. Applicants assert that the claims are clearly allowable over the cited references. Applicants further assert that further prior art searching is not required in order to address the changes associated with this Amendment.

I. Examiner Interview dated July 1, 2008

During the phone conversation on July 1, 2008, Examiner McLeod indicated that he would need to update his search in light of the current changes to the claims. Examiner McLeod suggested filing a Request for Continued Examination.

II. Rejection of the Claims

Claims 21-24, 26-31, 33-38 and 40 are rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,810,405 issued to LaRue et al. (hereinafter "LaRue"). Claims 25, 32 and 39 are rejected under 35 U.S.C. § 103(a) as being unpatentable over LaRue in view of U.S. Publication No. 2003/0053631 published to Un (hereinafter "Un"). Claim 28 is rejected under 35 U.S.C. § 103(a) as being unpatentable over LaRue in view of U.S. Patent No. 5,721,916 issued to Pardikar (hereinafter "Pardikar"). Applicants respectfully disagree with the rejections. Independent claim 21 has been amended to clarify the following combination of features that is not taught or otherwise suggested by the cited references:

> associating shadow settings with an application of the first computing device;
>
> registering the application of the first computing device with a shadow manager, wherein the shadow manager is on the first computing device, wherein registering the application includes communicating the settings to the shadow manager;
>
> receiving a system event on the computing device, wherein the system event indicates a coupling of the second computing device to the first computing device;

upon receiving the system event, determining whether shadowing is supported according to the settings communicated to the shadow manager;

when shadowing is supported,

shadowing, by the shadow manager, the current runtime execution of the application, and

sending, from the shadow manager of the first computing device, data of the current runtime execution of the application, wherein the data of the current runtime execution of the application is configured to cause the second computing device to execute an application on the second computing device with the same current runtime as the current runtime execution of the application on the first computing device.

The specification of the current application sets forth several examples associated with the advantages of the teachings of the specification as follows:

Shadowing system 300 shadows information associated with an actively running application such that a current state and data of the running application is available on personal computer 305 and mobile device 310. Application information may also be shadowed between mobile devices 310 and 315. Shadowing refers to the real time sharing of information associated with an application actively running on one computing device to at least one other computing device, that generally includes the most current state information and data associated with the active application. For example, a user may be listening to music from an MP3 play list stored on mobile device 310. When the user comes into proximity with personal computer 305, mobile device 310 shadows the MP3 application to personal computer 305 such that the user may access the MP3 play list on personal computer 305 at the same point as on mobile device 310. Likewise, when the user leaves the vicinity of personal computer 305 with mobile device 310, the song list plays on mobile device 310 from the same point where it was playing on personal computer 305.

In another embodiment, the user may use mobile device 310 to resume watching video from the same location where the video was interrupted on personal computer 305. In another embodiment, when the user is browsing the web on personal computer 305 and resumes browsing on mobile device 310, mobile device 310 opens the browser and links to the web page where connection was transferred from personal computer 305 to mobile device 310. Thus, the user is not required to remember the page sequence and history of the current uniform resource location (URL).

> In another embodiment, a user participates in a voice-over Internet protocol (IP) phone call using personal computer 305. Previously, when the user wanted to leave the area where personal computer 305 was located, the user would tell the other person to call mobile device 310 in a few minutes. The user would then terminate the call from personal computer 305, connect mobile device 310 to personal computer 300, and transfer the related data from personal computer 305 to mobile device 310. By shadowing application information of mobile device 310 and personal computer 305, the user may switch from the voice-over IP phone call on personal computer 305 and continue speaking on mobile device 310 without interruption.

As indicated from the above examples in the specification, a user can seamlessly have the same current runtime execution of an application on two separate computing devices. As an example, the user may be listening to a song on a desktop computer and midway through the song walk away from the desktop computer with an MP3 device. The MP3 application on the MP3 device executes the MP3 application at the same point in the song as the user had on the desktop computing device. As another example, a user may be watching a video on a personal computing device. The user may walk away from the personal computing device with a mobile device and the video will execute on the mobile device at the same point as when the user walked away from the desktop computing device. As another example, a user may be speaking on a mobile telephone and come within the vicinity of a desktop computing device. The desktop computing device executes the phone call application on the desktop computing device to continue the call without interruption on the desktop computing device. These same type of scenarios hold true for a web browsing application and other applications where the current runtime execution can be shadowed between a first computing device and a second computing device.

The references do not teach or otherwise suggest the above combination of features. With regard to LaRue, LaRue clearly teaches synchronization of personal information management data between a telephone and a synchronization server. (LaRue at Abstract). LaRue is concerned with the synchronization of datasets. For example, datasets may include email data, calendar data, contact data, etc. To perform the synchronization, the first device sends its changed data values to a second device. The second device resolves conflicts between the changed data values received from the first device and the second device's own changed

values. The second device incorporates the changed data values received from the first device into its own dataset if the received data values survive the conflict resolution. The second device also sends its own changed values that survived the conflict resolution to the first device. The first device incorporates the changed data values that it received from the second device into the first dataset. The first and second devices are a wireless cell phone and a synchronization server. Here, LaRue is clearly teaching the synchronization of datasets between two devices. LaRue does not teach or otherwise suggest the shadowing of the current runtime execution of the application.

The Office Action cites to Col. 11, lines 36-43, of LaRue. At Col. 11, lines 36-43, LaRue teaches as follows:

> More specifically, a user would enter the URL for an Internet-based PIM application 304, such as TrueSync.com, into a web browser of the Internet client 118. When the Internet client 118 makes contact with the PIM application 304, which would typically be running on a server at a remote location, the PIM application 304 may send information requesting that the user log on to the PIM application 304.

Here, LaRue is teaching the process of entering a URL into a web browser to gain access to a personal information management application. The Office Action also cites to Col. 13, lines 20-23. Col. 13, lines 20-23, recites as follows:

> Generally, the synchronization client 206 stores information in the dataset 202 to indicate which data in the dataset 202 have been changed since the last time the dataset 202 was synchronized with the dataset 302.

Here, LaRue is teaching an indicator or timestamp that indicates the last time that a dataset has been changed. LaRue is teaching a timestamp of a value that is being synchronized for conflict resolution purposes. The Office Action further cites to Col. 24, line 57, through Col. 25, line 10. Col. 24, line 57, through Col. 25, line 10, recites as follows:

> If the action object is a change, for example, the wireless device 102 will enter the change into its dataset 202, along with the timestamp from the action object. Suppose further that the wireless device 102 subsequently receives the second

> transmission of the action object. In the preferred embodiment, the wireless device 102 discards this second transmission of the action object as being a duplicate of a previously entered change. Specifically, the wireless device 102 checks the record ID of the second transmission of the action object and compares the timestamp stored in the dataset 202 that corresponds to that record ID against the timestamp in the second transmission of the action object. The wireless device 102 only enters the change if the timestamp of the received action object is more recent than the corresponding timestamp stored in the dataset 202. In the case of duplicate transmissions of the same action object, the timestamps for the two copies of the action object will be the same, and the wireless device 102 will discard the action object that is received second. Discarding duplicate action objects conserves processing resources of the wireless device 102. In a similar manner, the sync server 112 will also discard a duplicate action object if the same situation arises in the opposite direction.

Here, LaRue is teaching the checking of a timestamp in a record ID in order to determine whether an action is duplicative. LaRue is teaching this checking step in association with values that are being synchronized between the two devices.

LaRue does not teach or otherwise suggest "shadowing, by the shadow manager, the current runtime execution of the application," in combination with "sending, from the shadow manager of the first computing device, data of the current runtime execution of the application, wherein the data of the current runtime execution of the application is configured to cause the second computing device to execute an application on the second computing device with the same current runtime as the current runtime execution of the application on the first computing device." Again, LaRue is teaching synchronization between a first computing device and a synchronization server in association with data values. The current runtime execution of applications is not shadowed.

Moreover, the other cited references do not remedy the lack of teaching in LaRue. Pardikar teaches a method and system for shadowing file system structures on a computer system that can be connected to multiple types of networks. The file shadowing mechanism automatically and transparently store shadow copies of remote file system structures when they are accessed by a computer. The shadow copies of the file system structure are stored within a shadow database that resides within local memory of the computer. When the computer becomes disconnected from the network, shadow copies of the file system structures for the network are used to service requests to access such file system structures. Similar to the lack of

teaching in LaRue, Pardikar is not teaching the shadowing of the current runtime execution of an application. With regard to Un, Un is teaching a method for securely managing information in a database. Similar to the other cited references, Un does not teach or otherwise suggest shadowing the current runtime execution of an application between two devices. Accordingly, applicants assert that independent claim 21 is allowable over the cited references.

Independent claim 28 clarifies the following combination of features that is not taught or otherwise suggested by the cited references:

> associating shadow settings with an application of the first computing device;
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> registering the application of the first computing device with a shadow manager, wherein the shadow manager is on the first computing device, wherein registering the application includes communicating the settings to the shadow manager;
>
> receiving a system event on the computing device, wherein the system event indicates a coupling of the second computing device to the first computing device;
>
> upon receiving the system event, determining whether shadowing is supported according to the settings communicated to the shadow manager;
>
> when shadowing is supported,
>
> > ***shadowing, by the shadow manager, the current runtime execution of the application, and***
> >
> > ***sending, from the shadow manager of the first computing device, data of the current runtime execution of the application, wherein the data of the current runtime execution of the application is configured to cause the second computing device to execute an application on the second computing device with substantially the same current runtime as the current runtime execution of the application on the first computing device.***

The references do not teach or otherwise suggest the above combination of features. With regard to LaRue, LaRue clearly teaches synchronization of personal information management data between a telephone and a synchronization server. (LaRue at Abstract). LaRue is concerned with the synchronization of datasets. For example, datasets may include email data, calendar data, contact data, etc. To perform the synchronization, the first device

sends its changed data values to a second device. The second device resolves conflicts between the changed data values received from the first device and the second device's own changed values. The second device incorporates the changed data values received from the first device into its own dataset if the received data values survive the conflict resolution. The second device also sends its own changed values that survived the conflict resolution to the first device. The first device incorporates the changed data values that it received from the second device into the first dataset. The first and second devices are a wireless cell phone and a synchronization server. Here, LaRue is clearly teaching the synchronization of datasets between two devices. LaRue does not teach or otherwise suggest the shadowing of the current runtime execution of the application.

The Office Action cites to Col. 11, lines 36-43, of LaRue. At Col. 11, lines 36-43, LaRue teaches as follows:

> More specifically, a user would enter the URL for an Internet-based PIM application 304, such as TrueSync.com, into a web browser of the Internet client 118. When the Internet client 118 makes contact with the PIM application 304, which would typically be running on a server at a remote location, the PIM application 304 may send information requesting that the user log on to the PIM application 304.

Here, LaRue is teaching the process of entering a URL into a web browser to gain access to a personal information management application. The Office Action also cites to Col. 13, lines 20-23. Col. 13, lines 20-23, recites as follows:

> Generally, the synchronization client 206 stores information in the dataset 202 to indicate which data in the dataset 202 have been changed since the last time the dataset 202 was synchronized with the dataset 302.

Here, LaRue is teaching an indicator or timestamp that indicates the last time that a dataset has been changed. LaRue is teaching a timestamp of a value that is being synchronized for conflict resolution purposes. The Office Action further cites to Col. 24, line 57, through Col. 25, line 10. Col. 24, line 57, through Col. 25, line 10, recites as follows:

> If the action object is a change, for example, the wireless device 102 will enter the change into its dataset 202, along with the timestamp from the action object. Suppose further that the wireless device 102 subsequently receives the second transmission of the action object. In the preferred embodiment, the wireless device 102 discards this second transmission of the action object as being a duplicate of a previously entered change. Specifically, the wireless device 102 checks the record ID of the second transmission of the action object and compares the timestamp stored in the dataset 202 that corresponds to that record ID against the timestamp in the second transmission of the action object. The wireless device 102 only enters the change if the timestamp of the received action object is more recent than the corresponding timestamp stored in the dataset 202. In the case of duplicate transmissions of the same action object, the timestamps for the two copies of the action object will be the same, and the wireless device 102 will discard the action object that is received second. Discarding duplicate action objects conserves processing resources of the wireless device 102. In a similar manner, the sync server 112 will also discard a duplicate action object if the same situation arises in the opposite direction.

Here, LaRue is teaching the checking of a timestamp in a record ID in order to determine whether an action is duplicative. LaRue is teaching this checking step in association with values that are being synchronized between the two devices.

LaRue does not teach or otherwise suggest "shadowing, by the shadow manager, the current runtime execution of the application," in combination with "sending, from the shadow manager of the first computing device, data of the current runtime execution of the application, wherein the data of the current runtime execution of the application is configured to cause the second computing device to execute an application on the second computing device with substantially the same current runtime as the current runtime execution of the application on the first computing device." Again, LaRue is teaching synchronization between a first computing device and a synchronization server in association with data values. The current runtime execution of applications is not shadowed.

Moreover, the other cited references do not remedy the lack of teaching in LaRue. Pardikar teaches a method and system for shadowing file system structures on a computer system that can be connected to multiple types of networks. The file shadowing mechanism automatically and transparently store shadow copies of remote file system structures when they are accessed by a computer. The shadow copies of the file system structure are stored within a shadow database that resides within local memory of the computer. When the computer

becomes disconnected from the network, shadow copies of the file system structures for the network are used to service requests to access such file system structures. Similar to the lack of teaching in LaRue, Pardikar is not teaching the shadowing of the current runtime execution of an application. With regard to Un, Un is teaching a method for securely managing information in a database. Similar to the other cited references, Un does not teach or otherwise suggest shadowing the current runtime execution of an application between two devices. Accordingly, applicants assert that independent claim 28 is allowable over the cited references.

Independent claim 35 clarifies the following combination of features that is not taught or otherwise suggested by the cited references:

> a processor; and
>
> a memory having computer executable instructions, wherein the computer executable instructions are configured for:
>
> > associating shadow settings with an application of the first computing device;
> >
> > registering the application of the first computing device with a shadow manager, wherein the shadow manager is on the first computing device, wherein registering the application includes communicating the settings to the shadow manager;
> >
> > receiving a system event on the computing device, wherein the system event indicates a coupling of the second computing device to the first computing device;
> >
> > upon receiving the system event, determining whether shadowing is supported according to the settings communicated to the shadow manager;
> >
> > when shadowing is supported,
> >
> > > ***shadowing, by the shadow manager, the current runtime execution of the application, and***
> > >
> > > ***sending, from the shadow manager of the first computing device, data of the current runtime execution of the application, wherein the data of the current runtime execution of the application is configured to cause the second computing device to execute an application on the second computing device with substantially***

the same current runtime as the current runtime execution of the application on the first computing device.

The references do not teach or otherwise suggest the above combination of features. With regard to LaRue, LaRue clearly teaches synchronization of personal information management data between a telephone and a synchronization server. (LaRue at Abstract). LaRue is concerned with the synchronization of datasets. For example, datasets may include email data, calendar data, contact data, etc. To perform the synchronization, the first device sends its changed data values to a second device. The second device resolves conflicts between the changed data values received from the first device and the second device's own changed values. The second device incorporates the changed data values received from the first device into its own dataset if the received data values survive the conflict resolution. The second device also sends its own changed values that survived the conflict resolution to the first device. The first device incorporates the changed data values that it received from the second device into the first dataset. The first and second devices are a wireless cell phone and a synchronization server. Here, LaRue is clearly teaching the synchronization of datasets between two devices. LaRue does not teach or otherwise suggest the shadowing of the current runtime execution of the application.

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> More specifically, a user would enter the URL for an Internet-based PIM application 304, such as TrueSync.com, into a web browser of the Internet client 118. When the Internet client 118 makes contact with the PIM application 304, which would typically be running on a server at a remote location, the PIM application 304 may send information requesting that the user log on to the PIM application 304.

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Here, LaRue is teaching the checking of a timestamp in a record ID in order to determine whether an action is duplicative. LaRue is teaching this checking step in association with values that are being synchronized between the two devices.

LaRue does not teach or otherwise suggest "shadowing, by the shadow manager, the current runtime execution of the application," in combination with "sending, from the shadow manager of the first computing device, data of the current runtime execution of the application, wherein the data of the current runtime execution of the application is configured to cause the second computing device to execute an application on the second computing device with substantially the same current runtime as the current runtime execution of the application on the first computing device." Again, LaRue is teaching synchronization between a first computing

device and a synchronization server in association with data values. The current runtime execution of applications is not shadowed.

Moreover, the other cited references do not remedy the lack of teaching in LaRue. Pardikar teaches a method and system for shadowing file system structures on a computer system that can be connected to multiple types of networks. The file shadowing mechanism automatically and transparently store shadow copies of remote file system structures when they are accessed by a computer. The shadow copies of the file system structure are stored within a shadow database that resides within local memory of the computer. When the computer becomes disconnected from the network, shadow copies of the file system structures for the network are used to service requests to access such file system structures. Similar to the lack of teaching in LaRue, Pardikar is not teaching the shadowing of the current runtime execution of an application. With regard to Un, Un is teaching a method for securely managing information in a database. Similar to the other cited references, Un does not teach or otherwise suggest shadowing the current runtime execution of an application between two devices. Accordingly, applicants assert that independent claim 35 is allowable over the cited references.

With regard to the dependent claims, the dependent claims include features that are not taught or otherwise suggested by the cited references. Furthermore, those claims ultimately depend from the independent claims set forth above. As such, they should be allowable for at least those same reasons.

III. Request for Reconsideration

In view of the foregoing amendments and remarks, all pending claims are believed to be allowable and the application is in condition for allowance. Therefore, a Notice of Allowance is respectfully requested. Should the Examiner have any further issues regarding this application, the Examiner is requested to contact the undersigned attorney for the applicant at the telephone number provided below.

Respectfully submitted,

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